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for a sane world

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5-27-2004

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Attention (to) Mr. Thomas Grim
Enclosed you will find
3 pages of comments on the
SWEIS for LLNL; signed
by all the board members
present at our board meeting
on 5-27. The same comments
were transmitted by e-mail
2 days earlier. You might
note a few corrections of
typos on the enclosed hard
copy - EBPA is a 100%
volunteer organization and
due to time pressure there
was not a good proof reading.

Yours for a Nuclear Weapons
Free and Peaceful World.
Dale Nesbitt* for EBPA

*Retired Staff Scientist, LLNL

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Subject: Comments on the SWEIS for LLNL

To: Mr. Grim; L-293 U.S. DOE, National Security Administration, Livermore Site Office,
SWEIS Document Manager, 7000 E. Ave., Livermore, CA 94550-9234. e-mail,
tom:grim@oak.doe.gov

From: East Bay Peace Action

Dear Mr. Grim:

These comments will be presented in two major parts, (A) comments about the overall present nuclear weapons policy of the US government and (B) comments explicitly with regard to LLNL. We are fully aware that comments not applicable to the specific site, i.e. LLNL will probably be ignored. We are also fully aware that this is a deliberate policy to avoid the EIS procedure from ever being applied to the overall policy - exactly where it is the most critical. However we choose to make these comments anyway for two reasons, first because they NEED to be addressed and second in hopes that at least some individuals involved in this process will start to have some personal misgivings about their personal complicity in the illegal, immoral and counter productive policies as detailed in the present 'US Nuclear Posture Review'.

(A) Comments on the overall Nuclear Posture Review (NPR):

This review calls for an aggressive modernization of nuclear weapons and a renewed manufacturing base for nuclear weapons. Basically it calls for the US to increase its already huge advantage over the entire rest of the world in the area of nuclear weapons. We vigorously oppose this for three major reasons.

(1) First we feel, and many independent international legal experts agree, that it is ILLEGAL, under our own laws. Specifically The Non Proliferation Treaty (NPT) in article VI states "Each of the parties to the treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control" This treaty has been ratified and thereby becomes under our constitution the law of land. It is, or should be, obvious to every one that the NPR clearly violates our NPT obligation. At least be honest and formally withdraw from the treaty. In addition the United Nations charter along with the World Court opinion reinforces our belief that Nuclear Weapons are illegal and need to be eliminated - not enhanced!

1/01.01

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1/01.01
cont.

(2) Second, we feel, that the present US nuclear policy is Counter Productive! How can anyone state with a straight face that our policy will not increase the probability that other countries will feel that to protect themselves they need to acquire nuclear weapons or other forms of weapons of mass destruction? Does anyone need any other example than North Korea! In addition the NPR is, we believe, counterproductive in its calling for modernization of weapons and enhanced manufacturing capabilities for one simple technical fact (and one that we challenge anyone to refute with proof). This is that it is much easier, both in time and money, to duplicate any technical development than that required for the initial development. And this is true even if the details of the development are effectively keep secret.

2/32.04

(3) The third major reason we object ^{to} the NPR is a Moral one. We believe that all weapons of mass destruction, and especially nuclear weapons are immoral. Others, based upon hearing many of the oral presentations, have spoken elegantly of this so we will not expand further.

(B) Comments on the SWEIS for LLNL:

Again while we feel that all of the above comments should be addressed in the SWEIS, and some will be referred to in the following; there are indeed critical SITE specific issues that need to addressed honestly! Some of them follow:

3/30.02

(1) We have very serious concerns about security at LLNL with storing and using dangerous nuclear materials. We are familiar with the very poor record of LLNL in this regard in the past. It is we feel significant that the Congressional Subcommittee on National Security, Emerging Threats, and International Relations for the Committee on Government Reform in a recent hearing heard testimony about "insurmountable problems with plutonium and highly enriched uranium at ...LLNL" Further even DOE secretary Abraham has publicly expressed concern and made a commitment to consider removing the special nuclear materials at LLNL by 2005. An yet the SWEIS calls for greatly expanding the quantities!!@#%*&()!.. This issue needs to addressed honestly! (we hope that, is possible but have our doubts).

4/08.02

We feel outrage that the 5 to 6 million people that live within the arbitrary small 'danger' area of 50 mile radius would be subject to the potential dangers. While we feel, see section A, that the entire program should be scrapped that if it goes forward that all programs using any significant amounts of nuclear material must be removed from LLNL in Livermore. A better alternative location is the Nevada

5/08.01

Test Site. We have no doubt that our friends in Nevada do not want any of it either, even the moon is too close. Next for a few comments on individual programs,

6/27.01

(2) The project for perfecting the use of lasers to separate, and concentrate plutonium isotopes is a prime example of the problems, covered under A of a

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6/27.01
cont.

proliferation potential and the problem that if the US perfects the technology others will be able to duplicate it easier. What other country would be dumb enough to try if we didn't do it first? However the site specific questions that need to be addressed is the very very real danger of health dangers to workers, other LLNL personnel and the general public.

7/37.01

(3) The site specific question on the development of new manufacturing technologies for 'pit' production involve the same questions as raised in (1) and (2). If it presents no potential health and safety problems to employees or the general population it is up to LLNL to prove it!

8/26.01

(4) The plans to add plutonium, highly enriched uranium and lithium hydride to experiments in the NIF raise an issue beyond the same questions as previous covered. The public was feed a line that the NIFs primary purpose was to determine if inertial confinement was a viable approach to Fusion Power production, and that it would not be used to research how to design new types of nuclear weapons. Many of us never believed the rhetoric and now the SWEIS, and other information, makes it clear that the major purpose of the NIF is for Nuclear Weapons research. At least we call for more honesty and less spin.

9/35.01

(5) The plans for building a bio-warfare (BSL-3 level) agent facility at LLNL is a horrible idea. Again while within the limits of this SWEIS we can not have any effect on whether such a facility is built at least there are two major reasons why any such facility MUST not be built at Livermore. The first is safety, again any such facility should not be built in any heavily populated area, again even the moon is too close. Second any such facility must not be within a area closed, or restricted, due to secrecy. All such facilities need to be available to international inspections, even though with our present administration no treaty allowing such is likely.

10/07.01

In summary the plans for LLNL presented in this SWEIS are not only represent a distinct danger to everyone living any where in this area but they also represent a huge waste of OUR tax dollars and an even greater loss in time and creativity of the many talented individuals employed at LLNL. Why not present an alternative for a complete conversion to a research laboratory devoted to peaceful uses - like LBNL!

Signed on 5-27 by all the following board members present, all not present concurred by phone or e-mail communication.

Mrs. Betty Brown, Chair EBPA
John Rodriguez, EBPA Board Member
Mike B. Perry, EBPA Board member
Dale Meadell, EBPA Board member

Murray, Sarah

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Dear Mr. Grim,

1/04.01

I am writing in opposition to the Environmental Impact Statement on Livermore Labs planned for the next 10 years. I am a high school in a town less than two hours away and I do not agree with

2/33.01

your proposed statement. The plan will double plutonium limitin labs, and enable the production of more bombs.

3/37.01

4/17.04

increase the amount of airborne radioactivity, and will be detrimental to nearby residents.

I, and many others are asking you to reconsider your statement.

Sincerely,

Sarah Murray

Namperumal, Srihari
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Srihari Namperumal
 3030 Dohr street
 Berkeley, CA 94702

May 25, 2004

Mr. Tom Grim
 DOE, NNSA L-293
 7000 East Ave.
 Livermore, CA 94550

Dear Mr. Grim:

After attending the SWEIS review, the key piece of data that I have not seen is a fair and honest cost/benefit analysis of the scaling up of operations. Below are listed six of the proposed operational expansions...I do not see valid benefits to these increases. Please address my concerns on the environmental and proliferation risks from proposed nuclear weapons development and new plutonium and tritium programs at the U.S. Department of Energy's (DOE) Lawrence Livermore National Laboratory (LLNL).

1/02.01

1. Livermore Lab is working on the design of a new, high-yield nuclear bunker-buster, called the "Robust Nuclear Earth Penetrator," and I oppose its development. Additionally, I oppose the development of so-called "mini-nukes" and other new nuclear weapons concepts being researched at Livermore Lab. This only eggs on the rest of the world to step up their development and lowers the nuclear threshold.

2/08.02

2. Storage of More Nuclear Materials: This plan will more than double the storage limit for plutonium at Livermore Lab from 1,540 pounds to 3,300 pounds. It would increase the radioactive tritium storage limit from 30 grams to 35 grams. I join California Peace Action and the Livermore-based Tri-Valley CAREs group in calling on DOE to de-inventory the plutonium and tritium stocks at Livermore Lab, not increase them. Having these materials so close in the middle of a densely populated suburban/urban area poses serious risks due to both security and transportation.

3/27.01,
33.01

2. Plutonium Atomic Vapor Laser Isotope Separation (AVLIS): This plan will revive a project that was canceled more than 10 years ago because it was dangerous and unnecessary. The project is Plutonium AVLIS. This is a scheme to heat and vaporize plutonium and then shoot multiple laser beams through the hot vapor to separate out plutonium isotopes. To do this, Livermore Lab plans to increase the amount of plutonium that can be used at one time in any one room from 44 pounds to 132 pounds - a 3-fold increase. I join California Peace Action and the Livermore-based Tri-Valley CAREs in calling for cancellation of this project. Again, this plan increases the risk from any accidental release by 3 fold.

Namperumal, Srihari
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4/26.01,
26.03

3. Dangerous New Experiments in the National Ignition Facility Mega-Laser: This plan will add plutonium, highly-enriched uranium and lithium hydride to experiments in the National Ignition Facility (NIF) mega-laser when it is completed at Livermore Lab. Using these materials in the NIF will increase its usefulness for nuclear weapons development. It will also make the NIF more hazardous to workers and the environment. I join California Peace Action and the Livermore-based Tri-Valley CAREs in calling for a close out of the NIF project and termination of plans to use plutonium and other new materials in it.

5/37.01

4. New Technologies for Producing Plutonium Bomb Cores: This plan makes Livermore Lab the place to test new manufacturing technologies for producing plutonium pits for nuclear weapons. A pit is the softball-sized piece of plutonium that sits inside a modern nuclear weapon and triggers its thermonuclear explosion. DOE says these new technologies will then be used in a new bomb core factory, called the Modern Pit Facility (MPF). The Livermore Lab plutonium pit program will enable the MPF and production of 150 - 450 plutonium bomb cores annually, with the ability to run double shifts and produce 900 per year. This production capability would approximate the combined nuclear arsenals of France and China - each year. I join California Peace Action and the Livermore-based Tri-Valley CAREs in calling for termination of this technology development project.

6/39.01

5. Enhancing Readiness to Resume Full-Scale Nuclear Tests: This plan calls for Livermore Lab to develop diagnostics to "enhance" the nation's readiness to conduct full-scale underground nuclear tests at the Nevada Test Site. This is a dangerous step back to the days of unrestrained nuclear testing and I join with California Peace Action and Tri-Valley CAREs to oppose any move to "enhance" U.S. readiness to conduct full-scale tests.

7/35.01

6. Mixing Bugs and Bombs: This plan mixes bugs and bombs at Livermore Lab. It calls for collocating an advanced bio-warfare agent research facility with nuclear weapons activities in a classified area at Livermore Lab. The DOE proposes genetic modification and aerosolization (spraying) with live anthrax, plague and other deadly pathogens on site at LLNL. This could weaken the international biological weapons treaty -- and it poses a risk to workers, the public and the environment here in the California. Interestingly, this program is listed as part of LLNL's "no action alternative" as though it were an existing program -- even though it is not yet constructed, Tri-Valley CAREs has brought litigation against it, and a federal Judge has issued a "stay" prohibiting the importation of dangerous pathogens into the facility while the lawsuit moves forward. I join Tri-Valley CAREs in opposing the operation of a bio-warfare agent facility at Livermore Lab.

8/04.01

I believe the DOE plan to introduce new weapons programs into LLNL will promote a new arms race and escalate the nuclear danger. Further, the DOE proposal to double LLNL's plutonium storage limit to 3,300 pounds and triple the amount held "at risk" in any one room increases the environmental threat LLNL poses to the people of California. The SWEIS propels Livermore Lab in exactly the wrong direction.

9/07.01

Instead of proposing new weapons projects, DOE should enhance the peaceful, civilian scientific capabilities and mission at Livermore Lab by

Namperumal, Srihari
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9/07.01
cont.

proposing new, unclassified programs in environmental cleanup, non-polluting and renewable energy, earth sciences, astrophysics, atmospheric physics and others. The alternative of a "green lab" in Livermore should be pursued instead of the dangerous nuclear weapons future proposed by the Site Wide Environmental Impact Statement.

Sincerely,

Srihari Namperumal

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Program Analyst
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**Another Decade of Wasteful (and Hazardous) Nuclear Weaponneering:
Some Observations on the LLNL Draft SWEIS/PEIS**

**Statement of Christopher Paine
Senior Nuclear Program Analyst
Natural Resources Defense Council**

April 30, 2004

In 1989, the year the Berlin Wall came tumbling down, DOE's budget for nuclear weapons activities was \$4.25 billion (about \$5.5 billion in today's dollars), LLNL's piece of that budget was \$577 million or 13.5 %, which is about \$750 million in today's money.

Employment at LLNL stood at 8200 full-time equivalents (FTE's), 49% of whom were supported by DOE's nuclear weapons research, development, and testing program. Another 20% were supported by the DOE Defense Program's classified, weapons-related laser fusion effort, or performed so-called "reimbursable" research for the Strategic Defense Initiative (SDI) and other Department of Defense Programs. That brought the weapons-related employment to 5,740 FTE's, or about 70% of total lab employment.

The Atomic Vapor Laser Isotope Separation (AVLIS) Program and its classified offshoot, the "Special" (i.e. plutonium) Isotope Separation (SIS) project, employed another 1000 FTE's, and the remainder was spread among a smattering of small energy, general science, and biomedical research efforts.

1/27.01

Today, 15 years later, the Berlin Wall has disappeared. So has the Evil Empire of Soviet Communism that built it. So has the Warsaw Pact that defended it. But inexplicably, without rhyme or reason, the DOE budget request for nuclear weapons activities now stands at \$6.81 billion (included allocated administrative overhead costs), far above the Cold War average support level of \$4.2 billion (in current FY 04 dollars). LLNL's piece is a little under \$1 billion, or 14%, above where it was when the Wall came down. Livermore's employment stands at 10,600 personnel, 30% above the 1989 level, and the plutonium AVLIS project has been secretly, and in our view, *illegally* revived.

2/08.01

This is, frankly, a ludicrous situation that could and should have been avoided. In 1995, the Department's own Advisory Board Task Force on Alternative Futures for the Department of Energy National Laboratories (the "Galvin Commission," so named after the retired chairman of Motorola, John Galvin, who chaired the Task Force) recommended a "restructuring of weapon design capabilities" among the three nuclear weapons laboratories, noting that the restructuring would affect "primarily weapons design capabilities, where the largest functional redundancy exists, and specifically Lawrence Livermore National Laboratory."

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The Galvin Commission cautiously recommended that in light of the revised U.S. nuclear posture, including planned reductions to a "a required stockpile of around 5000 weapons" by 2003, -- half its current size -- LLNL should "transfer, as cost-efficiency allows, over the next five years, its activities in nuclear materials development and production to the other design laboratory." The proposed restructuring would also have included transfer of LLNL's "direct stockpile support" [of weapons] to the other weapons laboratories."

The Clinton Administration, to its lasting discredit, failed to act on this recommendation when the political door to significant denuclearization was still open, both here and in Russia. The result has been the steady restoration and expansion of redundant nuclear weapons capabilities at Livermore, duplicating similar capabilities at Los Alamos, Sandia, and NTS -- in some cases resulting in weapons research and development capabilities *in triplicate*.

As young Americans die in Iraq because somehow there wasn't sufficient funding for body armor kits, or because their Humvees got lost and ambushed for want of readily available GPS-aided tactical navigation and communication systems, I think about this feckless gold-plating of what is now clearly a marginal national security enterprise, and it literally makes me sick.

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For example, in this document, NNSA proposes to modernize and significantly expand LLNL's plutonium processing, inventories, and pit fabrication operations, upgrade and expand tritium operations, and build brand new centers for High Explosives Development and "Energetic Materials Processing" at Site 300. All these capabilities already exist in some form at one or more DOE sites.

Los Alamos National Laboratory, for example is already well along in a \$2.5 billion modernization of its plutonium chemistry and pit fabrication facilities, and already has extensive facilities for tritium research and target loading. Both Pantex and Los Alamos already have facilities for formulating weapons high explosives. LLNL's Site 300 flash radiography facilities duplicate those available at Los Alamos and NTS.

3/30.02

Moreover, the Livermore site, hemmed in by suburbs, with hazardous activities densely packed within a 1.3 square mile area that is highly vulnerable to external attack, is hardly the most appropriate place for storing and processing nuclear explosive materials.

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In an age when "the network is the computer," perhaps the most egregious example of extravagant redundancy is the recent construction of dedicated nuclear weapons supercomputing centers at all three laboratories, at an average cost, by 2009, of some \$2.92 billion *per laboratory* to equip each with state-of-the-art weapons simulation capabilities. Hasn't anyone in NNSA heard of secure networking?

By pointing out the extravagant redundancies that exist and even growing within today's nuclear weapons gold-plated "stewardship" complex, I do not mean to suggest that Livermore should bear the full or exclusive burden of any consolidation of complex capabilities, but rather that some overall rationalization is urgently needed to reduce

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costs, to free resources for more important defense tasks and deficit reduction, and to present a more reasonable face to the rest of the world.

For example, LLNL has long demonstrated, and is continuing to demonstrate, a comparative advantage over Los Alamos in weapons computing and software development. In a rationalized and restructured complex, shorn of its most egregious redundancies, it could well make sense for Livermore to be assigned the lead laboratory role in supercomputing, and to retain sufficient weapons design competence and "technology base" to continue activities in non-proliferation, nuclear materials detection, homeland security, intelligence support, and verification, while phasing-out or transferring to other sites its weapons plutonium, uranium, tritium, high explosive operations, radiographic hydrotest, and warhead stockpile support functions.

I talk with foreign analysts and reporters frequently, and I can tell you, they are looking at the increasing divergence between NNSA's nuclear weapons excesses and global political realities, and they are really starting to view the overzealous pursuit of nuclear weapons capabilities by this Department with alarm, and a certain measure of revulsion.

In light of the historical background just noted, it is clear that some of the fundamental premises of the current document are simply invalid. For example, the SEIS states:

"The nuclear weapons stewardship goal is to ensure that our nuclear weapons continue to serve their essential deterrence role by maintaining and enhancing the safety, security, and reliability of the U.S. nuclear weapons stockpile. *Achieving these goals requires the continued operation of LLNL.*" (Draft SWEIS/PEIS, p. S-2)

As a factual matter, the highlighted statement is simply not true. LLNL could be crippled tomorrow by a major earthquake -- a not-so-incredible event, by the way -- and the United States would still be left with a very robust nuclear deterrent:

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- LLNL-designed nuclear weapons -- the W62 and W87 intercontinental ballistic missile warheads, the W84 cruise missile warhead, and the B83 bomb *currently* account for only 20% of the total US "war reserve" stockpile of nuclear weapons, and by 2009 this fraction is likely to sink further, to around 15%.
- The approximately 400 W84 warheads have no delivery system -- all Ground Launched Cruise Missiles (GLCMs) were eliminated under the terms of the 1987 INF Treaty -- and are not maintained as part of the "active" nuclear weapons stockpile.
- Implementation of the "operationally deployed" strategic force reductions agreed to in the 2002 Moscow Treaty on Strategic Offensive Reductions (SORT) will result in the retirement of all 600 remaining W62 warheads from the stockpile by 2009.
- Within the 10 year period covered by this document, LLNL will have only two warheads types -- the W87 and the B83, remaining in the stockpile: the W87 is finishing a major multi-year "Life Extension" program this year (FY 2004), and

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renovation of some 650 B83 strategic bomb is not planned within the next five years. But NNSA is pushing advanced development of a "robust" earth penetrating variant of the B83 megaton-range bomb that a near majority in Congress are clearly uncomfortable with. One wonders whether the pressure for this is partly to give LLNL's redundant weaponeers something to do.

In sum, over the next five years LLNL will have little bona-fide workload relating to the support of its 1200 actively deployed weapons in the U.S. nuclear stockpile, creating a clear window of opportunity to restructure and consolidate nuclear weapon stockpile support functions at Los Alamos and Sandia Albuquerque national laboratories. Clearly, it makes no sense to maintain a separate \$1 billion per year NNSA weapons program at LLNL to support a mere 15% of US stockpile warheads.

Recognizing that LLNL had little to do for the weapons program other than continuing to hemorrhage billions on NIF construction, a few years ago NNSA again failed to make the rational choice -- phasing out LLNL's residual stockpile support responsibilities -- and instead decided to "redistribute" the stockpile support workload by transferring the W80 cruise missile warhead, a Los Alamos design, from LANL to Livermore!

There has to be a better way to field a nuclear deterrent without returning to the spending levels and programs of the Cold War, and there is. Only you won't find it listed as a "Reasonable Alternative" for detailed analysis in this Draft SEIS. The two alternatives to the "Proposed Action" deemed worthy of comparative analysis -- "No Action" (i.e. continue the status quo as proceed with projects already planned and approved for construction) and "Reduced Operation" -- are in fact not "alternatives" at all, and do not begin to represent a good faith examination of the range of reasonable alternatives, as required by law.

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This assertion is easily demonstrated. **Table A**, based on data presented in the SEIS, compares some salient environmental metrics of the three "alternatives," which turn out to be, not surprisingly, merely minor variations on a theme.

The limited variability in the environmental metrics of these supposed "alternatives" clearly represents an arbitrarily and artificially constrained look, rather than the legally required "hard look" at the range of reasonable alternatives for continued operation of LLNL. There is, for example, no consideration of a "Galvin Commission" like alternative for phasing out redundant weapons R&D and stockpile support functions that are obviously no longer economical or safe for NNSA to conduct at the Livermore site. And note that the level of lab employment for the "Reduced Operations" Alternative, -- 10,000 employees -- is actually higher than it was in 1989, during the last year of the Cold War!

In other words, these so-called alternatives are sham constructs, and they don't begin to reflect a reasonable range of alternatives for LLNL's future role in supporting the missions of the Department of Energy. In fact, three of the Department's most important missions, Nonproliferation, Homeland Security, and Energy Research, are given short

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TABLE A: A "Reasonable Range" of Alternatives for LLNL?

	"Environmental Baseline (2002)"	"No Action Alternative"	"Proposed Action"	"Reduced Operation"	Variability (%) from Baseline
Employment					
Livermore site	10,360	10,650	11,150	9,770	- 5.7 to + 7.6
Site 300	240	250	250	230	- 4.2 to + 4.2
Non-hazardous Solid Waste	4,500 mt/yr	4,600mt/yr	4,900 mt/yr	4,200 mt/yr	- 6.7 to + 8.9
Hazardous & Radioactive Waste Shipments (no.)	88	240	310	200	+ 127 to 252
Sanitary Waste Shipments	518	534	570	492	- 5 to + 10
Number of Material shipments (radioactive, chemical, & explosives)	470	540	600	550	+15 to 28
Hazardous Waste from Routine Operations	440 metric tons/yr	390 mt/yr	510 mt/yr	300 mt/yr	- 32 to + 16
Wastewater	300,000 gal/day	310,000 gal/day	330,000 gal/day	290,000 gal/day	- 3.3 to + 10
Annual Electricity Use	321 M kWh	446 M kWh	442 M kWh	371 M kWh	+ 15.6 to 39

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shrift in the "Statement of Purpose and Need" that supposedly underlies the agency's Proposed Action, even though these missions are arguably more important to US national security today than rebuilding or developing nuclear weapons. But nowhere in this document will you find alternatives that are premised on a future concentration *on these missions*, accompanied by a significant contraction of the nuclear weapons effort.

6/01.01,
26.01

Another obvious defect of the document is that it contains no consideration of the reasonably foreseeable impacts on nuclear weapons proliferation, both vertical and horizontal, from restarting laser isotope separation facilities for weapons purposes, developing detailed physics models and computer algorithms for simulating each stage of the nuclear explosion sequence, and using fissile materials in the National Ignition Facility, a step that DOE expressly denied it was interested in, and essentially lied about, when Congress first provided funds for construction back in 1997.

I expect that my colleagues from other organizations may explore some of these issues in greater detail.

For Further Information, visit www.nrdc.org/nuclear or
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